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NEW SOUTH AFRICAN GEOMETRIDAE.

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THE following descriptions have been prepared almost exclusively from material in the collection of Mr. A. J. T. Janse, to whose zeal and success in collecting we owe so much of our knowledge of the *Geometridae* of South Africa, and in particular of the Transvaal. Where not otherwise indicated, the types and cotypes are in his possession.

One or two additions and corrections to my former paper (*Ann., Transvaal Mus.*, III, 194-225) will not be out of place here.

SUBFAM. HEMITHEINAE.

Oedimetopia, n. gen.

Frons protuberant, with dense projecting hair. Palpus with first and second joints densely haired, third joint in ♀ long, smooth, slightly fusiform. Tongue present. [Antennae lost.] Pectus and femora densely hairy; hindtibia with four spurs; tarsi spinose. Abdomen robust, not crested, not impossibly a little abraded. Basal area of wings hairy beneath. Frenulum fully developed. Forewing rather broad, with costa straight to beyond one-half, then gently curved, apex moderate, termen somewhat oblique, anteriorly straight, posteriorly gently curved; cell rather short, DC inbent; SC¹ free, SC²⁻⁵ stalked, SC² arising considerably beyond SC⁵; R¹ from apex of cell, R² from slightly before middle, M¹ separate from, though approximated, to R³. Hindwing with apex pronounced, termen strongly crenate, its general outline straight from apex to R³, then convex; cell very short (only one-third), DC³ curved, becoming very oblique; C¹ well separated from cell near base and moderately rapidly diverging; SC² not stalked, R² from before middle of discocellulars, M¹ approximated to R³.

Type of the genus: *Oedimetopia jansei*, n. sp.

By the robust build, protuberant frons, densely hairy clothing, thick scaling, etc., this genus certainly belongs to my Group II, but it differs from all known genera of that group, except *Gnophosema*, in the joint of origin of SC^2 of the forewing; from *Gnophosema* in the frons, tibial armature and other characters. In my key (Gen. Ins., fasc. 129, p. 10) it can be introduced as follows:—

5. Forewing with SC^2 arising after SC^5 *Oedimetopia*.

Forewing with SC^2 arising before SC^5 5a.

5a. Hindwing with slight basal expansion (etc.).

Oedimetopia jansei, n. sp. (Pl. XXV, Fig. 1).

♀, 56 mm. Forewing ochreous whitish, irregularly irrorated with light blue-grey and blackish and mixed here and there with brighter ochreous; a large irregularly rounded (or almost diamond-shaped) pale discal spot, enclosed by thick velvety black and shortly followed by a pale patch from costa to R^3 ; a number of thick velvety black marks from costa to SC (about 14, but a few weaker than the rest), mostly continued by vague, interrupted lunulate-dentate lines across the wing, some becoming conspicuous and thick again at inner margin; a salmon-pink spot between R^2 and R^3 near the termen; fringe alternately pale ochreous and fuscous proximally, nearly white distally. Hindwing about from cell to termen and from R^2 to inner margin (i.e. manifestly the exposed part in the resting attitude) coloured like forewing, cell and base of inner margin mostly fuscous, with the discal spot darker fuscous, a pale blotch between discal spot and a strongly curved postdiscal line, the rest of the wing (from postdiscal line to termen and from costa about to R^3) forming a single large dark fuscous blotch. Under surface in basal one-third mixed with yellow ochreous, in middle third whitish with two dentate fuscous bands which are confluent in centre of wing, distal third fuscous, on hindwing enclosing a narrow whitish distal margin from apex to R^3 , this latter containing three fuscous crescentic marks in the cellules between SC^2 and R^3 ; both wings with large fuscous cell-spot, that of forewing almost absorbed in the first fuscous band, that of the hindwing far proximal.

Barberton, Transvaal, 1 ♀. Altogether a remarkably distinct species.

Neromia Stgr.

To this genus, which is at present made to cover all the *Chlorissa*-like forms in which the ♀ hindtibia lacks the median spurs, I now believe we must transfer the whole of the African group which I will call the *malescripta* group. Very few undamaged ♀♀ have as yet been available for study, but Warren's "type" ♀ of *malescripta* and a few of *articulicornis*, described below, have certainly only two spurs on the hindtibia, and it is virtually certain that such a close ally as *unilinea* Warr. will not differ in essential structure. On the other hand, a similar species from the Cape, which I take to be *attenuata* Walk.,* has a fully spurred ♀. The *malescripta* group is exceedingly difficult. During the past year or two I have repeatedly given very close attention to it, and in this I was greatly

* Walker's type is in the Oxford Museum and the identification awaits confirmation, but according to my earlier notes seems reasonably safe.

aided by Mr. Janse, who lent me for study the whole of his fine series and permitted me to retain duplicates of several of the forms. I worked out—apart from *dorsicristata* Warr., which is well distinct, though probably a *Neromia*—eight potentially differentiable forms, according to the venation, abdominal crests, ♂ antennal and hindtibial structure, etc.; but I suspected that some of the differences would prove inconstant, and therefore postponed publication of results. I am now satisfied that venation, crests, and strength and position of the white lines on the wings are all variable, though all show general *tendencies* that are helpful in conjunction with other characters. We are therefore left at present with only ♂ structural characters as absolute, but on the basis of these, with slight assistance from others, less stable, I have been able to establish a provisional scheme, which will be serviceable. I subjoin a brief analysis and shall then proceed to describe the new forms:—

1. Hindtibia of ♂ dilated, with hair-pencil; antenna distally mixed with reddish..... *unilinea* Warr.
Hindtibia of ♂ not dilated; antenna distally whitish..... 2.
2. Antenna of ♂ with the joints projecting; SC¹ of forewing generally beyond R¹..... *articulicornis*, n. sp.
Antenna of ♂ with the joints not projecting; SC¹ of forewing before R¹..... *malescripta* Warr.

It should be added that Warren's type of *approximans* has lost the hindlegs, but it is probably a mere aberration of *unilinea* (or possibly of *malescripta*), the lines approximated, as is not very infrequent in the group, and indeed in the *Geometridae* in general.

Neromia articulicornis, n. sp. (Pl. XXV, Fig. 41).

♂, 19–21 mm.; ♀, 22–25 mm. Face and palpus green, the latter in ♂ slightly longer than diameter of eye, in ♀ fully $1\frac{1}{2}$ or perhaps slightly over, the terminal joint about twice as long as in the ♂. Tongue well developed. Antennal joints in ♂ projecting, ciliation about as long as diameter of shaft; scaled surface white, purer white at base. Snow-white fillet rather narrower than green crown. Thorax green. Abdomen dorsally pale green, the crests concolorous, inconspicuous. Legs mostly pale green, foreleg partly reddish in front; hindtibia in ♂ not dilated, hindtarsus about 2 mm. in length. Forewing with SC¹ stalked; pale green (green powdered or somewhat strigulated with whitish-green); costal edge yellowish-white, at extreme base green; lines white, slender, antemedian generally weak, not very strongly bent, postmedian variable in position, rather straight or slightly curved; discal streak or lunule weak (green) or obsolete; a vaguely pale terminal line; fringe pale green. Hindwing with termen rather full, but not angled nor even noticeably bent at R³; discal mark and postmedian line as on forewing, the line sometimes curved nearly parallel with termen. Under surface much paler (whitish) green, the postmedian line faintly discernible.

Barberton, Transvaal, 26th December, 1910 (♂ type); other examples (both sexes), December, 1910–January, 1911.

As var. (?) *RUFICRISTATA*, n. var., I describe a form with two red dorsal crests, the white lines sometimes thick, the antemedian often distinct, postmedian generally almost straight, hindwing beneath perhaps less whitish. Pretoria, 28th November, 1907 (type ♂); 14th December, 1912 (cotype ♂, in my collection). These measure 22–23 mm. A small ♂ (18 mm.) from Durban, November, 1908 (coll. Janse), and an old Natal ♂ (also small) in the British Museum collection are likewise referable here.

Neromia unilinea Warr., ab. *inornate*, n. ab.

In typical *unilinea* the crests are red, sometimes topped with some black scales, especially the posterior one. Transvaal (Barberton, Three Sisters, Waterval Onder) should be added to the known localities. Together with it (Barberton, Three Sisters, Sarnia [Natal]) occur small specimens which I name ab. *inornata*, in which the crests are green, only with a few scattered red or black scales discoverable with the microscope.

Neromia cohaerens, n. sp. (Pl. XXV, Fig. 2).

♂, 23 mm.; ♀, 30 mm. Face red. Palpus very short, red above, yellowish-white beneath. Tongue rather short and slender. Crown pale green, narrowly white between antennae. ♂ antenna simple, closely lamellate; base of antenna white. Thorax and abdomen pale green above, white beneath. Foreleg, and to a less extent middle leg, red on upper and inner sides; hindleg of ♂ rather short and strong, but not dilated. Forewing pointed, termen very little curved, rather markedly oblique, the wing therefore slightly narrower than in *rubripunctilla* Prout; SC¹ anastomosing shortly with C; costal edge narrowly whitish-yellow; the rest uniform delicate pale green (a shade lighter than in *Chloëres citrolimbaria* Guen., otherwise similar), only in one ♀ with a faint pale postmedian line at about 3 mm. from termen; fringe very pale green in proximal half, white in distal. Hindwing with apex well rounded; M¹ quite shortly stalked; like forewing, except costa. Under surface rather paler green, costal edge of forewing about as above.

Pretoria, 2 ♂♂ (A. J. T. Janse), type, 7th December, 1907; cotype, 8th January, 1909, the latter in coll. British Museum. Waterval Onder, 2 ♀♀, 21st and 26th November, 1910 (A. J. T. Janse), one in coll. L. B. Prout. Natal (W. H. Heale), 1 ♂, without more exact data, in coll. British Museum.

Lophorrhachia, n. gen.

Palpus in ♂ rather short, but with the third joint distinct, relatively well developed (in the unknown ♀ therefore probably elongate). Tongue well developed. Antenna in ♂ pectinate with tolerably long branches, apical part simple. Pectus slightly hairy. Femora glabrous. Hindtibia in ♂ thickened in its distal third, apparently with only one median spur,* the terminals moderate, the tibial sheath extending slightly beyond them along proximal part of tarsus. Thorax smooth. Abdomen with well-developed crests. Frenulum in ♂ short, in ♀ no doubt wanting. Forewing broad, apex not acute, termen gently curved, tornus well expressed;

* In the unique example both hindlegs are too closely oppressed to the body to allow of absolute certainty without injury.

DC moderately incurved (rather strongly just behind R^2), SC^1 free, SC^2 arising before SC^5 , R^1 separate, R^2 normal, M^1 separate (approximated to R^3). Hindwing with inner margin long, tornus rounded-prominent, termen straight or very slightly sinuate inwards from tornus to R^3 , here bluntly angled, thence more convex than in *Thalassodes*, approaching the shape of *Cheroscelis rubricorpus* Warr.; cell short, DC little curved, C touching SC at a point near base, rapidly diverging, SC^2 short-stalked, R^2 normal, M^1 very shortly stalked.

Type of the genus: *Lophorrhachia niveicristata*, n. sp.

May be placed between *Cheroscelis* and *Heterocrita*, showing more the build and texture of the latter, but with no sign of excision between the radials of the hindwing, stronger crests, etc. In my Key (Gen. Ins., fasc. 129) it separates off on p. 17, at 64, and if the tibial armature is as indicated above it must be further mentioned in footnote 3 on p. 14.

Lophorrhachia niveicristata, n. sp. (Pl. XXV, Fig. 3).

♂, 32 mm. Face blood-red, lower extremity white. Palpus dark red above, dirty white beneath. Vertex and antennal shaft white; occiput green. Thorax and abdomen green above, white beneath and at anal extremity; second to fourth abdominals each with a snow-white crest, the first two almost surrounded at their bases with bright red, the last only with a little red at its posterior extremity. Wings green, almost as bright as in *Heterocrita koranata* Feld., but rather thinly and smoothly scaled, costal edge of forewing white; both wings with small red discal dot and fine red terminal line, the latter extending round apex and extremity of costa of forewing; lines extremely fine and faint, being only slightly darker or greyer green, lunulate, the antemedian outward (present on forewing only), the postmedian inward, marked with small dark grey dots on R^1 , R^3 , M^1 , M^2 , and SM^2 (forewing also, still more minutely, on R^2); fringes white. Under surface whitish-green, unmarked, costal edge of forewing dirty white.

Umkomaas, Natal, 6th January, 1914.

Heterorachis despoliata, n. sp. (Pl. XXV, Fig. 4).

♀, 28 mm. Closely related to *devocata* Walk., structure the same. Forewing with costa slightly more rounded, termen somewhat straighter, at least posteriorly, tornus in consequence more squared; costal edge red and only narrowly, not fuscous (only a little spotted with fuscous); marginal yellow line exceedingly fine and not crenulate, the red line distally to it being also exceedingly fine and not thickened between the veins; tornal blotch wanting; fringe much paler than in *devocata*. Hindwing with termen less convex than in *devocata* and scarcely showing even the very weak crenulations which (especially about the radials) are observable in that species; terminal line and fringe as on forewing. Under surface also with the paler fringes. Abdomen dorsally strongly infuscated, as in some forms of *devocata*, but with the crests white or whitish, not (or only at their bases) fuscous.

Pretoria, 2nd December, 1911 (type). Other examples in coll. Brit. Mus. and coll. L. B. Prout.

But for the differences in wing-shape, I should have been inclined to regard this as a form of *devocata*. The Transvaal form of the last-named has the costal margin red, not fuscous, but it is widened and markedly underlined with pale yellow, the fringe also bright red, the ground-colour more vivid green than in typical *devocata* and in *despoliata*, the abdomen dorsally paler, with the crests red.

Heterorachis disconotata, n. sp. (Pl. XXV, Fig. 6).

♀, 29–30 mm. Face and palpus red. Vertex rather narrowly white; occiput green. Antennal shaft whitish, pectinations not quite as long as in *devocata*. Forecoxa, femur, and tibia bright red above and on inner side, middle femur and tibia similarly but not quite so deeply coloured, hindleg whitish. Abdomen rather narrowly green dorsally, tip, sides, and venter white; crests extremely minute, green, scarcely appreciable. Forewing with apex pointed, termen rather straight, moderately oblique, tornus rather pronounced; SC¹ anastomosing rather strongly with C, SC²⁻⁵ long-stalked from well before R¹, R² from very near R¹ (more extreme than on hindwing), M¹ well separate; rather duller, bluer (or greyer) green than *devocata*, the colour formed of coarser and slightly less dense green irroration on whitish-green ground; costal edge very narrowly ochreous-whitish; very faint indications of a cell-spot at origin of R²; fringe concolorous or very little paler. Hindwing with C anastomosing at a point with SC, SC² short-stalked, M¹ separate; concolorous with forewing, a rather conspicuous, darkened green cell-spot on DC³. Under surface whitish-green, costal area of forewing slightly suffused with reddish (or reddish-grey) basally, at the costal margin more strongly reddish.

Barberton, 6th and 17th January, 1911, collected by Mr. Janse, the former example kindly presented to me.

Bluer green than *asyllaria* Swinh., less *vermiculata*-like in scaling, spots less marked, shape slightly more that of *Omphax*; evidently very near *simplicissima* Prout, which in its turn may have to sink to *simplex* Warr. (*haploa* Prout). The characters in this group (antennal structure, abdominal crests, stalking or separation of M¹ of hindwing) seem all unreliable or difficult to utilize so as to bring about a natural grouping; for the present I continue to call all its constituents in which the ♀ antenna is pectinate *Heterorachis*. It is curious that almost throughout the group, but especially in *Heterorachis*, the ♀♀ are more frequently taken than the ♂♂; I have no information as to their habits.

Comostolopsis germana, n. sp.

♂ ♀, 14–18 mm. Face and palpus bright orange-ochreous, the latter white beneath; third joint in ♂ rather short, in ♀ moderately elongate. Vertex and base of antenna white; antenna in ♀ subserrate. Thorax and abdomen green above, becoming white anally; white beneath. Forewing slightly less pointed at apex than in *simplex* Warr., slightly less yellowish-green; costal margin white or whitish-green, rather broadly at base, the extreme edge in fresh specimens ochreous; the lines silvery white, rather less fine than in the allies, strongly waved or lunulate-dentate; first line near base, vertical from hind margin, inbent at fold, becoming

very indistinct; second from two-thirds costa or slightly beyond, approximately parallel with termen, but slightly curved basewards at costa and between M^2 and SM^2 ; discal dot orange or orange-reddish, rather larger but less sharply marked than in *simplex* (where it is fuscous); fringe green, no red terminal markings. Hindwing concolorous, without first line, second more markedly sinuous. Under surface whitish-green, often with slight traces of reddish or orange suffusion costally in basal area of forewing.

Natal: Durban, Pinetown, and Sarnia; type (Sarnia, 12th January, 1912, A. J. T. Janse) in my collection. An aberration with the discal spots green, scarcely differentiated from the ground-colour, was bred by my friend Mr. Percy Richards in Durban, in July, 1899, and is mentioned in Gen. Ins., fasc. 129, p. 238, as an aberration of *simplex*.

Smaller than *simplex*, with which it has heretofore been confused, differing in the green, not yellow fringes, white costal margin, lack of fuscous discal dots and of red apical marking, less fuscous basal suffusion beneath, etc. I have now seen Warren's type of *capensis* and a good ♀ of the same from Estcourt, Natal; it is a distant species, larger, much bluer, with red face, ochreous costa, etc.

Allochrostes (?) *imperfecta*, n. sp. (Pl. XXV, Fig. 7).

♂, 14 mm. Face green; vertex broadly white; occiput green. Palpus slender but somewhat rough-scaled beneath, scarcely as long as the diameter of the eye. Tongue slight. Antennal shaft white proximally; pectinations long. Forewing with costa scarcely arched, apex rather sharp, termen straight, tornus moderately pronounced; SC^1 from cell, running into C, $SC^{2.5}$ rather long-stalked, M^1 just separate; green, nearly as in *saliata* Feld., but not quite so bright, extreme costal edge white; lines greenish-white, very fine; first from rather beyond one-third hind margin, parallel with termen, obsolescent anteriorly to M; second from two-thirds costa to three-fourths hind margin, nearly straight, very faintly sinuate outwards anteriorly and inwards posteriorly; no terminal line; fringe concolorous. Hindwing with apex and anterior part of termen strongly rounded, termen almost straight from R^3 to beyond submedian fold, giving a slight impression of a bend at R^3 , tornus rounded—prominent; cell fully one-half, C anastomosing to nearly three-fourths cell, SC^2 long-stalked, M^1 stalked; concolorous with forewing, a fine postmedian line, slightly bent about R^3 . Under surface paler green, unmarked.

Warmberg, Transvaal, 25th November, 1903.

Unfortunately the sole example of this tiny species has lost both hindlegs, so that its generic position is in a measure conjectural. The minute palpus makes it unlikely that it is an *Omphacodes*.

Xenochlorodes xina, n. sp. (Pl. XXV, Fig. 5).

♀, 27 mm. Face red; vertex white; occiput green. Palpus exceedingly minute, red. Tongue apparently wanting. Antenna nearly simple, weakly subserrate; white at base, becoming somewhat tinged with ochreous. Thorax above green, beneath white. Foreleg red above and on inner side, the tarsus paler; hindleg whitish, with a pair of strong

spurs. Abdomen pale green above, white beneath. Forewing ample, costal margin slightly more arched than in the type species; C remote from SC, SC¹ from cell, strongly divergent, so as to anastomose with C, SC²⁻⁵ from just before R¹, DC¹ becoming moderately oblique, M¹ remote from R³; green, less vivid and more bluish than in *beryllaria*, extreme costal edge whitish-ochreous; first line obsolescent, faintly traceable (in posterior half only), apparently a little curved, to hind margin at nearly two-fifths; postmedian whitish, parallel with termen, at 3.5 mm. therefrom, distinct from hind margin to R³, then gradually fading out; fringe slightly paler green. Hindwing with C anastomosing to one-half cell, SC² very short-stalked, M¹ remote from R³; only the postmedian line continued, here median, very slightly curved. Underside paler green, unmarked, costal edge of forewing whitish-ochreous.

Barberton, Transvaal, 6th January, 1911. Since drawing up this description I have seen a ♂ from Umkomaas, Natal, 22nd January, 1914, also collected by Mr. Janse; smaller than the ♀, otherwise quite agreeing.

Differs from typical (Palaeartic) *Xenochlorodes* in the still more minute palpus, apparent absence of tongue, shorter anastomosis of C of hindwing, and wide separation of M¹ of both wings.

Acidaliastis bicurvifera, n. sp. (Pl. XXV, Fig. 8).

♀, 21 mm. Face light brown. Vertex whitish-brown. Thorax and abdomen whitish, the former more brown anteriorly. Foreleg brown, with the coxa more reddish. Forewing with apex acute, termen oblique, straight anteriorly, curved posteriorly; light brown, more ochreous along the costal margin; two broad, curved, very oblique white lines, the distal from close to apex to before two-thirds hind margin, the proximal commencing near the distal, almost parallel with it, but slightly more oblique still, edged with slightly darker (more reddish) brown on their approximated sides; a terminal line of this same slightly reddish brown; fringe white. Hindwing white, with a brown terminal line. Forewing beneath brown anteriorly, whitish posteriorly, the distal line of upperside indicated.

Pretoria, 19th February, 1914.

Evidently akin to *curvilinea* Prout, which—on the discovery that the hindtibia had terminal spurs only—I removed to *Allochrotes* (Lep. Cat., xiv, 167), but which, I suppose, should be regarded as a comparatively broad-winged green *Acidaliastis*. Besides the quite different colour, the presence of a second line on the forewing distinguishes *bicurvifera*.

Acidalia straminea Feld.

I find that *melliflua* Warr. (Nov. Zool. IV, 52, *Craspedia*) is an aberration of *straminea* Feld. (Reise Novara, Lep. Het. t. 128, f. 33) with the discal blotches wanting and that my ab. *sumpta* (Ann. Transv. Mus., III, 198) and ab. *discata* (Ann. S. Afric. Mus., X, 484) are virtually synonyms of name-typical *straminea*, although these forms vary among themselves as to the exact extent and distribution of the blotches.

Acidalia pertinax, n. sp. (Pl. XXV, Fig. 9).

♂ ♀, 20–21 mm. Face brownish-black, with lower extremity white. Palpus dark above, whitish beneath. Antennal ciliation in ♂ rather longer

than diameter of shaft. Vertex white. Collar light ochreous. Foreleg fuscous in front. Thorax, abdomen, and legs otherwise white, with a few scattered blackish specks, which accumulate on mid-dorsum into a row of ill-defined spots (large dots). Hindtibia of ♂ moderately long and thick, tarsus scarcely more than one-half the length of tibia. Wings coloured as the least yellow ♂♂ of *A. immutata* L., the black dusting about as in that species, the shape of hindwing more as in *corrivalaria* Kretschm., there being a weak bend at R³. Forewing with first line from beyond one-third, oblique outwards, strongly bent in cell, then oblique inwards; median line slightly thicker, from hind margin opposite discal spot of hindwing, oblique to R¹, then slightly curved, becoming indistinct; postmedian slender, accentuated by black dots on veins, that on R² slightly displaced proximally, that on R¹ distally, a slight proximal curve towards costa; between the black dots the line is very faintly lunulate inwards; subterminal indicated by two rather straight lines which edge it; discal dot small, black, midway between first and median lines; termen with conspicuous black dots. Hindwing without antemedian line, the median very slightly curved just proximally to the cell-dot, which is here large; postmedian running rather straight across the wing; subterminal nearly parallel with termen, curving a little outwards towards tornus; terminal dots as on forewing. Forewing beneath slightly less white anteriorly, the dusting rather strong in cell, posterior area and hindwing cleaner white; both wings with discal dot, postmedian line and rather weak terminal dots.

Natal: Umkomaas, 14th January, 1914, type ♂; 3rd January, 1914, a ♀ in coll. L. B. Prout. Port Natal (J. V. Gooch), a ♂ in coll. British Museum, presented by C. O. Waterhouse in 1874.

Acidalia quintaria, n. sp. (Pl. XXV, Fig. 10).

♀, 20–22 mm. Face black above, mixed with white below. Vertex greyish. Collar ochreous. Smaller than *A. tricommata* Warr., Nov. Zool., VI, 294, rather less pure white, forewing with the costa slightly more arched, hindwing with termen more weakly crenulate, only with a rather prominent tooth at R³. Forewing without black spots at costa and virtually without the characteristic dark markings of *ricommata* and the *ornata* group generally, only the discal spot, the terminal dots, and some very minute, inconspicuous vein-dots on the distal teeth of the postmedian line being black; antemedian and median lines nearly as in *tricommata*, postmedian finely and pretty regularly denticulate, a little further from termen between the radials and slightly approaching it at hind margin; white subterminal line broad, at radials receding somewhat from termen and at the same time doubling in thickness, thus here reaching the postmedian line; five grey-brown spots proximally to the subterminal, the first two separated by SC⁵ and nearly confluent, the third and fourth separated by M¹, the fifth at hind margin; terminal dots relatively very large; some black dots at base of fringe, the strongest close to tornus. Hindwing without the first line, median angled on SC, strongly incurved proximally to cell; cell-dot rather larger than on forewing; postmedian line with the curves stronger than on forewing; the rest like forewing. Under surface white, unmarked.

Sarnia, Natal, 10th February, 1912 (Williamson). Cotypes in coll. L. B. Prout.

It is unfortunate that the ♂ is still unknown, but the species will be easy to recognize.

Ptychopoda fortificata, n. sp. (Pl. XXV, Fig. 11).

♀, 16 mm. Face and most of upper and outer sides of palpus blackish; head, body, and legs otherwise concolorous with wings. Wings glossy bone-colour, sparsely sprinkled with fuscous atoms, ground-colour more strongly tinged with brownish-ochreous than in *associata* Warr., Nov. Zool., IV, 62, no doubt belonging to the same group; the markings distinct, deep purplish-fuscous. Forewing with costal margin rather broadly fuscous from base to first line; first line from costa at 1.5 mm., bent on M, then slightly incurved; median line rather thick, not quite so sharply expressed as the others, blackest at costa, weakly sinuous, nearer the termen at its posterior end than at its anterior, containing on its proximal edge a minute black discal dot; postmedian nearly black, similarly sinuous, or rather more conspicuously so posteriorly, swelling into distal blotches near costa, at hind margin, and especially from R³ to M²; some less intense fuscous shading at termen, hardly thicker than a line in posterior part of wing but widening anteriorly; some minute dark dots (scarcely visible to the naked eye) on the fringe close to its base. Hindwing with termen straight from R¹ to the rounded bend at R³-M¹, then again straight or faintly concave; SC² moderately long-stalked; first line wanting, the others more strongly sinuous, the median therefore containing the discal dot at its *distal* edge, postmedian weaker than on forewing, double, its two parts confluent at costa and close to tornus; terminal shade and fringe as on forewing. Forewing beneath without first line, but with some fuscous suffusion distally and in cell; median and postmedian very strongly expressed, the latter not widening into distal blotches, terminal shade and fringe as above. Hindwing beneath with the median line, terminal shade and fringe as above, postmedian single, corresponding to the distal of the upperside pair.

Barberton, 31st December, 1910.

Larger and more sharply lined than *associata* Warr. and *squamulata* Warr., the lines and distal blotches differently arranged, etc., perhaps intermediate in breadth of wing.

Ptychopoda echo, n. sp. (Pl. XXV, Fig. 12).

♂, 13 mm. Face, palpus, and upper and inner side of foreleg blackish. Vertex and antenna pale. Collar and front of thorax darkened, as costal region of forewing; body otherwise coloured like ground-colour of wings. Similar in colour and facies to *associata* Warr., of which I at first supposed it might be merely a weakly marked form; ♂ antennal joints, however, with strong angular projections as in *squamulata* Warr., which is not conspicuously the case with *associata*. Hindlegs unfortunately lost. Wings slightly broader than in *associata*; second costal spot of forewing further from termen (about midway between termen and first spot), the postmedian which arises from it therefore also further from termen, rather less in bent posteriorly, rather weak and fine, a band shortly beyond it.

somewhat more conspicuous (except at costa); dark ternal shade of forewing not, of hindwing not greatly, developed (the latter rather more pronounced beneath); discal dot distinct, black, as in *associata*; dots on fringe almost obsolete. Hindwing with distinct discal dot, otherwise quite weakly marked, traces of three curved lines or narrow bands between discal dot and termen. Forewing beneath more suffused, especially in basal half along costa and behind cell; both wings with distinct black discal dot and three moderately distinct but not sharply defined lines or shades distally to it, forewing in addition with a blackish costal spot at origin of postmedian.

Barberton, 16th January, 1911 (type); 25th January, 1911 (cotype), the latter in coll. L. B. Prout.

A much narrower-winged ♀ (Barberton, 21st January, 1911), expanding 14 mm., is perhaps a handsome aberration of this species—scarcely its normal ♀ form. The postmedian costal spot is placed somewhat nearer to the apex, the postmedian line itself is lost, the distal area from here to the termen, excepting a moderately thick subterminal line, being occupied with a fuscous bordering; hindwing above and both wings beneath with a similar fuscous bordering, though slightly less dark beneath; fringe of both wings with better developed dots. This pretty form bears the same relation to the name-type as *Pt. biselata* Hafn., ab. *fimbriolata* to ab. *extincta*.

Ptychopoda paraplesia, n. sp. (Pl. XXV, Fig. 14).

♀, 21 mm. Face deep fuscous. Palpus marked with fuscous on outer side. Vertex and antenna whitish; collar more brownish. Thorax and abdomen concolorous with wings. Forewing moderately elongate; shining whitish bone-colour, with a minute grey dusting; lines grey, not very sharp; first line very weak, gently curved, strongly oblique, from costa at about 3 mm. to hind margin at scarcely 2 mm.; discal dot small, rather distinct; median line distinct, well beyond discal dot, parallel with termen, only very feebly sinuate inwards in posterior part; postmedian finer, minutely crenulate, parallel with median, the sinuosity perhaps slightly more observable; a pale subterminal, extremely faintly indicated by the absence of the grey dusting, in some lights seen to be bounded by slight dark shades (increase of dusting); termen with some very weak interneural spots; fringe unspotted. Hindwing with termen scarcely sinuous; SC² and R¹ stalked to half-way beyond cell; without first line; median making a bend to pass proximally to the small but distinct black discal dot, otherwise parallel with termen; postmedian rather more crenulate than on forewing; vague lines or shades accompanying the subterminal proximally and distally, the proximal in particular tending to break into spots, the distal almost reaching the termen; terminal line and fringe as on forewing. Under surface rather whiter, forewing with vague smoky suffusion in proximal half, except towards hind margin; lines (except first of forewing) present, but fine and weak; discal dots present; terminal dots somewhat more conspicuous than above.

Waterval Onder, Transvaal, 23rd November, 1910. Type in coll. A. J. T. Janse.

May possibly prove to be a form of *nitescens* Warr., Nov. Zool., IX, 502; rather lighter, the median shade of forewing *following* the cell-dot, the dots in the fringe wanting. Rather longer-winged than *consericeata* Prout, rather less dusted, discal dot of forewing much smaller and free from accompanying grey clouding.

A rather smaller, rather shorter-winged ♂ from Selukwe, Southern Rhodesia, October, 1911 (F. W. Short), and a more typical ♀ from the same source, August, 1913, both in coll. L. B. Prout, seem referable here; also two worn ♂♂ from Salisbury, Mashonaland, August and October, 1900 (G. A. K. Marshall), in coll. British Museum; ♂ antennal ciliation not much longer than diameter of shaft, hindtibia little longer than femur, dilated, with light brownish hair-pencil reaching nearly its entire length, tarsus quite short (less than one-half tibia), strongly bent.

Ptychopoda nasifera, n. sp. (Pl. XXV, Fig. 13).

♀, 19 mm. Face and upper side of palpus black. Head and body concolorous with wings. Forewing long and narrow, less glossy than in the preceding groups, dirty whitish with coarse fuscous dusting, rather recalling the Palaearctic *Pt. seriata* Schrank or *longaria* H.-Sch., but with an appreciably more fleshy tinge; lines formed of accumulations of the fuscous atoms, the postmedian best expressed, antemedian from costa at 3 mm. angled on subcostal vein, then wavy, almost parallel with the very oblique termen; median similarly formed, slightly more distinct, passing just distally to the black cell-dot; postmedian from costa nearly 3 mm. from apex, rather oblique inwards, nearly meeting the angle of median line, then (at SC⁵) shapely bent outwards, acutely angled on R¹, thence somewhat sinuous, nearly parallel with termen; extremely faint indications of a sinuous pale subterminal between darker shades; fringe somewhat dark-dotted. Hindwing relatively rather short, termen slightly sinuate inwards between M¹ and tornus; no antemedian line; median and postmedian strongly sinuous, the former passing just proximally to the black cell-dot; a thick dark line distally and parallel to the postmedian. Wings beneath without distinct markings, except the rather large discal dots; forewing somewhat more suffused than above, hindwing somewhat whiter.

Warmberg, Transvaal, 9th October, 1903.

Ptychopoda subculta, n. sp. (Pl. XXV, Fig. 15).

♀, 16 mm. Face and palpus blackish; head and body otherwise concolorous with wings; forefemur and tibia partly fuscous. Wings shaped as in the Palaearctic *Pt. bisclata* or *invalida*, to the latter of which in its small second-brood forms (as I have it from Shanghai) it bears a rather near resemblance. Bone-colour, but with a more brownish hue than the species named, rather more strongly dark-dusted. Forewing with antemedian line from costa just beyond 2 mm., weakly sinuous ("S-shaped"), reaching hind margin at 1.5 mm.; median shade rather diffuse, not very strong, crossing the small distinct black cell-dot, then incurved parallel with antemedian; postmedian finer, gently sinuous, with a slight tendency to form small distal teeth on the veins, arising

from a black costal dot just over 2 mm. before apex, following a similar course to that of *biselata*, though rather less crenulate; pale subterminal line as in *invalida*, i.e. thickening and bending proximal between the radials, nearer the termen and more interrupted in posterior half of wing, the fuscous shades, which (as in *invalida*) accompany it proximally, moderately pronounced, though not so strong as in *squamulata*, etc.; dark dots on base of fringe pronounced. Hindwing with SC^2-R^1 moderately stalked; median shade almost as near base as antemedian of forewing, thus well proximal to the black cell-dot; postmedian rather strongly sinuous and dentate, but in places not very distinct—a conspicuous tooth on R^1 , a rather deep curve inwards between R^1 and R^3 , containing a slight tooth on R^2 ; distal area and fringe as on forewing, but perhaps with rather more dark shading *distally* to the subterminal line in addition to its proximal dark shading. Under surface similar, but forewing with suffusion in its whole basal area instead of first line, i.e. quite like a moderately well-marked *biselata*, a clear band of the ground-colour, as in that species, showing between the median and postmedian.

Barberton, 26th December, 1910.

Ptychopoda purpurascens, n. sp. (Pl. XXV, Fig. 16).

♂, 13 mm. Rather smaller than *Pt. lacteipennis* Btlr. (Ill. Het., VII, 107) from Dharmasala, antennal ciliation somewhat shorter, hindwing elbowed in middle, with R^3-M^1 shortly stalked. Thorax and forewing dull purplish with dark irroration and a slight admixture of reddish scales, a yellowish spot on fold just behind middle; a dark line from tornus, less oblique than the wing-margin, curving strongly basewards after crossing M^1 , losing itself in the radial area before reaching the cell; distally to this line, and broadening towards apex, the ground-colour is appreciably paler, with slight yellowish admixture; fringe yellow. Hindwing reddish in proximal half, dull purple in distal, a zigzag whitish-yellow line in middle quite as in *lacteipennis*; just distally to this line the purple colour is irrorated with reddish; fringe yellow. Under surface similar but rather duller, the band of hindwing broader, less whitish, the line from tornus of forewing not distinguishable.

Umkomaas, Natal, 30th–31st January, 1914 (A. J. T. Janse); the cotype kindly presented to my collection.

Ptychopoda umbricosta Prout.

In describing this species (Ann. Transv. Mus., III, 201), I overlooked an interesting and very rare abnormality in its venation, the complete loss of the distal wall of the areole, leaving the five subcostals on a common stalk, SC^1 arising first. The three or four species of *Ptychopoda* in which this occurs might possibly be formed into a new genus, but they do not seem otherwise congruous and the phenomenon has probably arisen independently.

The East African race which I described (*loc. cit.*) as *minimaria* Warr. shows the same structure, strengthening my idea that it might prove conspecific, though the point cannot yet be regarded as absolutely established. But I find the insect in question is one of the—unfortunately

numerous—misidentifications in Swinhoe's otherwise useful paper (Trans. Ent. Soc., Lond., 1904, pp. 497-590) and requires a new name: ***Ptychopoda umbricosta depleticosta***, n. subsp. (= *minimaria* Swinh., Trans. Ent. Soc., Lond., 1904, 559, indescr.; Prout, *loc. cit. supra*), slightly greyer, perhaps less strongly glossy, vertex less white, forewing with costa concolorous, fringe with strong dots at base. Founded on three ♀♀ (not "two ♂♂, one ♀," as given by Swinhoe) in coll. British Museum, from Tana River, British East Africa. Warren's *minimaria* is, as its author says, a close ally of *associata* Warr. (= *exilinata* Warr.).

Ptychopoda (Cacorista) rufimixta rufifascia, n. subsp. (Pl. XXV, Fig. 17).

Differs from typical *rufimixta* Warr. (Nov. Zool., VIII, 207), from the Lower Niger, in having the red (in one example more purple) lines much better expressed, the median and postmedian distinct across the wing, the latter forming a moderate band, proximally blackish-edged in at least its anterior half. Hindwing with traces of a red postmedian band at least at inner margin, where it terminates in a darkened spot. Both wings beneath with conspicuous purple postmedian band, as well as strong suffusion costally on forewing and in cell of both wings.

Umkomaas, Natal, 2nd January, 1914 (type), 6th January (cotypes in coll. L. B. Prout). The British Museum has very worn examples from Tonga, British East Africa (wrongly identified by Swinhoe as *macrostyla* Warr.), which seem referable here.

Zygophyxia, n. gen.

Face flat, smooth. Palpus short (about as long as diameter of eye), shortly rough-scaled. Tongue slender. Antenna in ♂ ciliated, in ♀ simple. Pectus and femora glabrous. Hindleg not aborted, tibia in both sexes with terminal spurs only. Forewing very long and narrow, costa *very slightly* arched, apex round-pointed, termen smooth, almost straight, strongly oblique, about as long as hind margin; cell well over one-half, C free, a single areole far before end of cell, SC¹, SC²⁻⁴, and SC⁵ arising almost together at its apex, or SC⁵ from stalk of SC²⁻⁴; M¹ separate (not remote), M² rather near M¹. Hindwing elongate, costa long, straight, apex rather rounded, termen smooth, almost straight from near apex to R³, then very gently curved, more strongly about M¹, thence straight or faintly subconcave (about parallel with costa), tornus very weak; cell fully one-half; C anastomosing at a point or rather more, then gradually diverging, SC² separate, R² central, medians as in forewing.

Type of the genus: *Zygophyxia relicatata* Walk. (*Acidalia*?).

Differs from *Ptychopoda* and *Limeria* in the non-stalking of SC² of the hindwing; *conscensa* Swinh., Proc. Zool. Soc., Lond., 1885, p. 863, though less extremely narrow-winged, also belongs to this genus.

Zygophyxia stenoptila, n. sp. (Pl. XXV, Fig. 18).

♀, 19-20 mm. Face blackish fuscous; palpus marked with the same above; vertex and base of antenna pale; collar somewhat fuscous. Thorax and abdomen concolorous with wings. Light sandy-brown, sometimes with a tinge of reddish, hindwing very slightly paler than forewing; markings fuscous, rather vague. Forewing with first line obsolete; median

very oblique (even more so than *termen*), very ill-defined, apparently angled on SC^5 , crossing the small but sharply black cell-dot (in one example slightly proximal thereto), connected in middle (especially in one cotype) with a slight, narrow fuscous shade in distal half of cell, lying along the median vein; postmedian line rather better defined, at least on the veins, oblique from three-fifths posterior margin towards apex, followed distally by a slightly less oblique, ill-defined shade or band, the two meeting about R^3 , the shade or band running on almost to apex (the scheme therefore about as in the *defamataria* group of *Lycauges*); *termen* with a series of small dark interneural dots or dashes; fringe somewhat infuscated, unspotted. Hindwing with weak median shade, crossing the distinct black discal dot and sharply bent about R^1 (but almost obsolete costally); subterminal line (or vein-dots) and shade extremely ill-defined, apparently reversing the arrangement of forewing, i.e. meeting in tornus; terminal dots nearly as on forewing, fringe somewhat less infuscated. Under surface more suffused, at least in proximal half of both wings, usually leaving only a clear band proximally to the postmedian line and a narrower, less complete terminal one.

Pretoria, 14th October, 1911 (type), 12th November, 1909, and 27th January, 1912, collected by A. J. T. Janse, the cotypes in my collection. More glossy and less strongly marked than *Z. relicata* Walk.

Rhodometra satura, n. sp. (Pl. XXV. Fig. 19).

♂, 22-24 mm. Closely similar to *rosearia* Tr., differing as follows: antennal pectinations not quite so long and leaving a slightly longer apical part simple; forewing with rosy costal edge broader; rosy band slightly more oblique, running to costa almost at apex, here meeting the terminal rosy band, which is rather broader than in *rosearia*. the intervening yellow area thus forming a narrow, wedge-shaped band, with sharp anterior point directed towards (but not quite reaching) apex or anterior end of *termen*; fringe rosy; hindwing practically uniform dark smoky, without the pale base, cell-spot or postmedian band of *rosearia*, its fringes also dark smoky; under surface of forewing less strongly, of hindwing hardly at all, flushed with rosy.

Delagoa Bay, 1890 (Junod), type; White River, E. Transvaal, December, 1907 (A. T. Cooke); Durban, Natal, April, 1902 (G. F. Leigh); all in coll., British Museum. Also in coll. Janse, from Durban.

Conchyliia lapsicolumna, n. sp. (Pl. XXV, Fig. 20).

♀, 22 mm. Face white, mixed with brown, but less strongly than in the other *Conchyliia* species. Palpus brown. Head and body white. Forewing white, less strongly shining than in the other species, costal margin not brown; bands bright light brown, but much less golden than in *pactolaria* Wllgrn., slightly edged (as in that species) with more fuscous brown; the proximal from posterior margin at 2-3 mm. (being almost 1 mm. in width), not extended along the margin basewards, strongly oblique, constricted in middle, terminating abruptly (broadened rather than narrowed) at the cell-fold, near the distal end of the cell; distal band slightly crenulate at its margins (much less deeply than in *pactolaria*),

arising on posterior margin near tornus (not curving basewards) and running straight across the wing to *costal margin* 1-2 mm. before apex; termen dusted with brown to a width of 1 mm.; the margin itself with dark spots between the veins. Hindwing less pure white, being very finely and vaguely dusted with brown. Under surface very like that of *pactolaria*; forewing suffused with brownish, the bands very feebly showing through in a greyer tone, hindwing white.

Waterval (Zoutpansberg District), Transvaal, 9th December, 1903.

Eupithecia festiva, n. sp. (Pl. XXV, Fig. 21).

♂, 15 mm. Head and thorax light ochreous-brown, somewhat mixed with white. Antennal ciliation minute. Abdomen rather long and pointed, very varied, its base, a narrow mediodorsal stripe to beyond middle and a lateral one from before middle to anal end, concolorous with thorax; a bright ferruginous patch laterally on 2nd-3rd abdominal (recalling *Melanthia ustiplaga* Warr., Nov., Zool., VI, p. 298), and some ferruginous ventrally in posterior part; the rest predominantly dark grey; dorsal crests scarcely developed. Forewing with termen not so oblique as in many of the genus; light ochreous brown, a good deal mixed with bright ferruginous; basal patch dark grey costally, its boundary indicated by a curved, strongly oblique whitish line; a broad median band, mostly dark grey, especially at costa, in the middle and posteriorly somewhat mixed with the ground-colour, and with an irregular patch of the ground-colour around the large black discal spot; boundary-lines of this band fine, white, the proximal oblique outwards from nearly two-fifths costa, acutely angled at SC, then parallel with termen, but with a curve inwards in submedian area; the distal from nearly two-thirds costa, forming a gentle outward curve from SC⁵, posteriorly about parallel with termen; subterminal line white, distinct, nearly straight from near tornus to near costa, then slightly inbent; termen with dark spots between the veins; fringe with a pale line at base. Hindwing grey, paler in cell and traversed by pale waved lines, the proximal ones only indicated at the inner margin. Forewing beneath more greyish-suffused from base to postmedian and with greyish bands proximally to the subterminal and to the termen; subterminal line indistinctly pale; a dull ferruginous tinge in the rest of the distal area. Hindwing beneath grey, traversed by whitish lines.

Barberton, 29th January, 1911.

The coloration somewhat recalls that of the European *E. gueneata* Mill., though slightly darker, duller, and less rufescent.

Eupithecia gradatilinea, n. sp. (Pl. XXV, Fig. 22).

♀, 20 mm. Face and palpus fuscous. Thorax above concolorous with forewing, abdomen much darker than hindwing, both beneath pale. Forewing pale ochreous-grey dusted with dark-grey (colour of *E. castigata* Hbn.; both wings very slightly narrower than in that species); cell-mark black, elongate (length of DC^{2.3}); costal margin with some dark dots and spots, especially at the beginnings of the lines; some dark spots at base; lines rather indistinct; subbasal fine, bluntly angled subcostally; an intermediate line and the antemedian scarcely discernible, apparently

formed somewhat like the postmedian; median discernible from cell-spot to hind margin, parallel with postmedian; postmedian falling nearly perpendicularly from costa just proximally to two-thirds, thick and somewhat indented (and followed distally by a slightly pale space) between costa and R^3 , afterwards finer and indistinct, forming a point distad between R^3 and M^1 , then running to posterior margin staircase-wise, being bent alternately inwards and outwards, the inward angles placed on M^2 and SM^2 , the outward on the fold; subterminal line whitish, dentate from costa to R^3 , more irregular (and in parts indistinct) behind, but with a purer white spot between R^3 and M^1 and a second behind M^2 ; terminal line black, rather thick, interrupted at the vein-ends; fringe greyish, weakly dark-spotted opposite the veins, a pale yellow-grey line at its base. Hindwing whitish, the inner margin and distal margin to a width of 1 mm. concolorous with forewing; cell-mark as on forewing; postmedian line (continuing the median of forewing) running perpendicularly from costa to R^3 , rather thick but shadowy, only darkened into dashes on the veins, nearly parallel with termen posteriorly but incurved in submedian area; the pale band which follows very feebly bisected by a grey line; subterminal and terminal lines and fringe as on forewing. Forewing beneath paler, becoming white posteriorly; costal spots, cell-mark and costal half of postmedian line nearly as above, terminal area somewhat darkened except at tornus, the subterminal therefore indicated through most of its course. Hindwing beneath nearly as above, postmedian line rather stronger, subterminal line thicker and more ill-defined, diffused nearly to termen in tornal half.

Pretoria, 13th December, 1909. Barberton, 4th January, 1911 (A. J. T. Janse), kindly presented to my collection. A worn ♂ from White River, May, 1908 (A. T. Cooke), probably also belongs here; antennal ciliation minute. The Barberton specimen is a little darker than the type, but not in quite such perfect condition.

Eupithecia rubidimixta, n. sp. (Pl. XXV, Fig. 23).

♀, 21–22 mm. Related to the preceding, possibly even a remarkable local form of it, differing as follows: termen of hindwing slightly more inclining to crenulate, between the radials straight or feebly subconcave; both wings with a strong reddish admixture, especially along the posterior margin and in distal area, on the forewing prominently, also in the pale parts which (more than in *gradatilinea*) bound the median area; a reddish patch between the radials posterior to the median band in particular noticeable; the dark colouring intensified, especially in the median area of the forewing, a distinct dark bar (narrow band) present between the basal and median areas which is scarcely at all suggested in the type specimen of *gradatilinea*, but is traceable (though not conspicuous) in the Barberton example; cell-spots thickened; subterminal line mostly weaker, but with the white dots (especially that behind M^2) more prominent. The under surface is quite alike in both forms, except for the larger cell-spots, and gives, with the form of the postmedian line of the upper surface, the chief clue to the possible specific identity.

Waterval Onder, 22nd to 25th November, 1910 (A. J. T. Janse), the latter (cotype) in coll. L. B. Prout.

Eupithecia polylibades, n. sp. (Pl. XXV, Fig. 27).

♀, 23 mm. Head and thorax whitish-grey, coarsely peppered with blackish. Palpus nearly twice as long as diameter of eye, second joint stout, roughly scaled above, more strongly dark-mixed, pale at tip. Abdomen dorsally belted with ferruginous, except at tip; a pair of black spots on the second belt, another on the last (seventh); crests very small. Wings normally shaped. Forewing whitish-grey with a slight bluish tinge, dark dusted and traversed by numerous (perhaps about 15) darker, somewhat waved lines, composed of accumulated coarse dark speckles, all pretty uniform in intensity, though with a slight suggestion of a darkened band of just over 1 mm. breadth proximally to the rather large oval cell-spot; the succeeding lines more angulated behind R^1 ; postmedian line just differentiable by a slightly darker spot and dark, proximally directed tooth on the veins, the succeeding lines somewhat similarly toothed; distal area more densely irrorated and with a brown admixture, the whitish subterminal somewhat interrupted, thus chiefly indicated as a row of short lunules, a whitish spot behind R^3 and a second behind M^2 also noticeable; terminal line black, somewhat thickened anteriorly, interrupted throughout by small pale dots at the veins; fringe long, its proximal half with large oval dark spots opposite the veins, its distal half more uniform. Hindwing slightly tinged with brownish, the lines proximally to the postmedian undeveloped except at inner margin, some not very conspicuous dark vein-streaks running proximad from the postmedian; distal part of wing and fringe as on forewing; a moderate cell-spot. Under surface rather lighter and more glossy; forewing with proximal part somewhat suffused, darkest along costa, without lines; cell-spot present, also the angulated lines beyond (not manifestly composed of dots); postmedian line rather thick, somewhat formed of spots, a divided pale band following; distal area with two pale lines, the second being the true subterminal; terminal line as above; fringe more weakly marked. Hindwing not suffused, first angulated line proximal to cell-spot, second crossing it, third between it and subterminal, distal part nearly as on forewing.

Pretoria, 20th March, 1914. A second example—a ♂, rather rubbed—from Machacha, Basutoland, 10,000 feet, 29th January, 1902 (R. Crawshay), in coll. British Museum; antennal ciliation quite short.

Eupithecia perizomoides, n. sp. (Pl. XXV, Fig. 24).

♀, 17 mm. Face mixed golden-brown and fuscous. Palpus the same, the fuscous rather preponderating, first and second joints beneath pale. Vertex pale grey. Thorax mixed golden-brown and fuscous above, dirty-white beneath. Foreleg fuscous above, spotted with white at the ends of the joints. Abdomen dorsally greyish fuscous, with belts of golden-brown (in part somewhat ferruginous) at the ends of the segments; ventrally dirty-white. Forewing not much elongated; basal patch greyish fuscous, becoming pale at posterior margin, and containing a large golden-brown spot subcostally; margined, at about 1 mm. from base, by a slightly curved, scarcely dentate, fine white line; intermediate area dirty-white, more or less dusted with fuscous and golden-brown and containing small

fuscous patches at costa and hind margin, accompanied proximally and distally by ill-defined golden-brown spots; median band rather narrow, only 1 mm. at costa, less at hind margin, not quite 2 mm. at widest part (from R^1 about to M^2), distally indented on the veins and fold, greyish fuscous, containing a large black cell-mark, which is partly surrounded with golden-brown, and a golden-brown streak along SC; a wavy but tolerably distinct white line bounds the median band proximally; a further white line bounds it distally; two golden-brown bands, separated by a fuscous line, follow the same contour distally; the area between the second of these and the pale subterminal is mostly filled in with fuscous; subterminal much broken into spots; terminal area fuscous, mixed with golden-brown; fringe weakly dark-spotted. Hindwing rather elongate, with termen strongly rounded; whitish grey, almost unmarked; fringe unspotted. Forewing beneath whitish grey, with very shadowy indications of some of the upper side markings. Hindwing beneath whitish, with very vague cell-dot and weak-bent grey bar just beyond.

Waterval Onder, 3rd November, 1910.

An eccentric species in the shape of the hindwing and its lack of colour, perhaps hardly a true *Eupithecia*, though the venation agrees (single areole, little oblique discocellulars, etc.). Rather recalls *Perizoma*. The dorsal crests become weak on posterior segments.

Chloroclystis gymnoscelides, n. sp. (Pl. XXV, Fig. 25).

♀, 13–16 mm. Head, body, legs, etc., mostly concolorous with wings, but with the following parts more or less infuscated: lower extremity of face, which ends in slight tuft; outer side of palpus; most of thorax dorsally, base of abdomen dorsally; front (upperside) of foreleg except at the extremities of the joints. Wings brownish-grey with a vinous tinge, about like *Gymnoscelis pumilata* Hbn., but both wings relatively shorter, termen of hindwing virtually smooth (straighter between the radials than the rest); markings not very sharp, the lines and shades of the proximal area of the forewing, however, more uniformly darkish, more oblique than in *pumilata*; medium area not lighter than distal, the pale lines which bound it less sharp than in most *pumilata*; postmedian line curved proximad at costa, indented, and with slight thickening between the radials, posteriorly less conspicuous; subterminal line discernible, somewhat dentate, no conspicuously vinous band proximally to it, the dark markings placed as in *pumilata*, but not intense. Hindwing with postmedian line slightly nearer to termen than in *pumilata*, nearly parallel therewith throughout, only with feeble inward curve between radials and very feeble inward curve between R^3 and inner margin. Under surface sharply marked, recalling the European species of *Chloroclystis*, but without distinct discal spots, the forewing somewhat more suffused from base to postmedian line, the thick postmedian of the hindwing less acutely angled at R^3 .

Umkomaas, 18th January, 1914 (type), 23rd January, 1914 (cotype, worn, in coll. L. B. Prout).

Xanthorhoe (?) *brunneitrames*, n. sp. (Pl. XXV, Fig. 26).

♀, 29–35 mm. Face brown in upper half, deep fuscous in lower. Palpus fuscous, basal part pale beneath. Vertex brown. Thorax above

mixed brown and deep fuscous; metathoracic tuft posteriorly black. Abdomen brownish, the sides dusted with black, the dorsal surface strongly mixed with black, leaving some brown belts, or at least an anterior one. Forewing light-brownish, the markings blackish mixed with ferruginous (in one example mainly ferruginous), the basal and median areas traversed by the usual wavy lines; basal patch with a small outward bend in front of SM^2 ; median band rather broad, more ferruginous at its edges, proximal edge slightly wavy, forming a very gentle and regular curve, distal with small indentations on SC^4 and SC^5 , a slight inward curve between the radials, a pointed or more rounded projection about R^3 , thence slightly retracted and creulated; a narrow, more or less interrupted white line between this band and the next black line, then a more ferruginous shade; distal area more or less strongly clouded with black on either side of the deeply lunulate-dentate pale subterminal, the most prominent markings being an oblique line from apex, a streak distally to, but partly interrupting, the subterminal between SC^5 and R^1 and a patch proximally to the subterminal between the radials; all the veins distally to subterminal thickly marked with ferruginous brown; the dark discal mark is enclosed in a distinct, elongate, ferruginous-brown mark; fringe brownish, chequered with fuscous. Hindwing of the same ground-colour, slightly shaded with fuscous as far as on ill-defined postmedian line, which is chiefly emphasized by large dark vein-spots in its posterior half and by being followed, as on forewing, by an interrupted pale line; subterminal line distinct only in posterior half of wing, where there is again some slight fuscous admixture. Under surface pale-brownish, both wings (especially forewing) more greyish from base to a fine, moderately distinct postmedian line and with a conspicuous black discal spot; forewing also with costal margin basally dark-marked, especially a spot about 4 mm. from base.

Barberton, 19th December, 1910 (type). Durban (Clark), much less fuscous-marked, in coll. L. B. Prout. Estcourt, Natal (J. M. Hutchinson), in coll. British Museum.

Larger than *saturata* Guen., with a more brownish hue in ground-colour, black apical line and other differences. Whether the ♂ antennal structure agrees with that group (*Ochyria* Warr., *nec* Hbn.), remains unknown.

Mauna ardescens, n. sp. (Pl. XXV, Fig. 29).

♂ ♀, 35–38 mm. Head with palpus and antenna orange-red irrorated with crimson; antenna in ♂ not pectinated, merely with short, very shortly ciliated teeth. Thorax above orange-red; beneath white or whitish, anteriorly mixed with crimson. Legs white or whitish, upper and inner sides of foreleg almost entirely crimson, of middle leg strongly mixed with crimson, of hindleg less strongly spotted with the same; ♂ hindtibia strongly and roundly swollen, with hair-pencil, hindtibia abbreviated, spinose. Abdomen orange-ochreous, slightly paler beneath except at anal end. Wings rather broader than in typical *Mauna*. Forewing with SC^2 connected with SC^{3-4} by a short bar (in the typical species this varies between a short bar and point-anastomosis); orange-red in the ♀ almost entirely covered over with crimson irrorating, giving

it a very warm red coloration; a blackish cell-spot feebly expressed in the type ♀, distinct in another ♀, obsolete in the other examples (which, however, are worn); an oblique ochreous or yellowish line from hind-margin at 7 or 8 mm., running almost straight towards apex but slightly incurved after passing R^1 , reaching costa at about 2 mm. from apex or becoming nearly obsolete; fringe more purplish, darker (in one example mostly blackish) distally. Hindwing bright orange-ochreous, unmarked, in some lights showing faint traces of a paler median line; fringe tinged with crimson, at least distally. Under surface ochreous, with costal and distal margins and apical regions more reddish-tinged; fringes as above.

Barberton, 19th December, 1910 (type ♀). A quite similar ♀ from White River, E. Transvaal, 20th September, 1910 (A. T. Cooke), two worn ♂♂ (Pretoria, November, 1894; Van der Merwe Station, 12th December, 1906), and a worn ♀ (Lydenburg District), all in coll. British Museum.

Forms a new section of the genus, according to the ♂ antenna.

Drepanogynis glaucichorda, n. sp. (Pl. XXV, Fig. 28).

♂ ♀, 29–32 mm. Head and palpus red-brown or purple-brown, the latter mixed with bright deep ochre. Antennal shaft reddish, pectinations in ♂ moderately long; ♀ antennal subserrate. Thorax and abdomen concolorous with wings. Legs light-brown, slightly dark-speckled, fore coxa and tibia mostly red-brown. Forewing with costa straight except at base and apex, termen in ♂ slightly, in ♀ more markedly bent in middle; red-brown or purple-brown (variable in colour), slightly sprinkled with grey or glaucous-grey speckles or strigulae; lines fine, pale glaucous-grey or whitish; antemedian from costa at slightly beyond one-fourth, outbent or curved at first, then about vertical to hind margin at one-third, rarely very distinct throughout; accompanied proximally (sometimes partly obscured) by a narrow grey shade, distally by a very fine line a little darker than the ground-colour; postmedian from costa 2 or 3 mm. before apex, parallel with termen about to M^1 , then slightly curved basewards; accompanied proximally by a very fine line rather darker than the ground-colour, or ill-defined shading, distally by elongate grey spots, separated by the veins (occasionally quite indistinct), the ones between M^2 and hind margin often enlarged; cell-spot rather large, oval, dark grey, sometimes slightly paler in middle; fringe, except a pale line at its base, concolorous with wing. Hindwing rather paler, with small discal dot and whitish postmedian line, broadest and most distinct on inner-marginal half, where it is faintly incurved and often accompanied by a grey line proximally and sometimes by a small grey blotch distally. Under surface always reddish, with coarse grey speckles, usually reddest towards margins (except hind margin of forewing); discal dots usually indicated, postmedian sometimes vaguely traceable.

White River, E. Transvaal, November, 1907, and March, 1908 (A. T. Cooke), type ♂ and cotype ♀ in coll. British Museum. Barberton, 13th–25th January, 1911 (A. J. T. Janse), two ♀♀. Sabie, February–April, 1912 (W. Grubb), a broad-winged ♀ aberration in coll. L. B. Prout. Pretoria (A. J. T. Janse), a ♀. Karkloof, Natal, 20th February, 1897

(G. A. K. Marshall). Lower Tugela, Zululand, 160 feet elevation, 21st September, 1902 (E. D. Reynolds). The last three (all ♀) in coll. British Museum. The Pretoria specimen is an aberration or local form, of a much less reddish colour and with the postmedian line of forewing only very slightly curved.

Rather more stoutly built than *chromatina* Prout (*Apleroneura*), deeper coloured, more dark-dusted, forewing with larger discal spot, lines less clean-cut, usually further apart on hind margin of forewing, postmedian on hindwing much less near the discal spot, under surface less marked, etc. But in the extraordinary variability of some South African "Ennoimids," it is not absolutely impossible, they may have to be merged. The generic name *Drepanogygis* Guen. has priority over *Apleroneura* Warr., which—in ignorance of Guenee's species—I have hitherto used for this genus.

Sicyodes ocellata intuens, n. form.

♀, 39 mm. Structure as in *cambogiaria* Guen. (= ? *biviaria* Guen.), shape not very dissimilar, forewing with costal margin relatively longer, termen more strongly gibbous at radials, more strongly oblique behind, hindwing rather longer. Face dove-colour, somewhat mixed with ochreous. Palpus dotted with darker reddish, the minute terminal joint dark grey. Vertex, antenna, body, and legs dove-colour, the legs dark-spotted. Wings dove-colour with vague olive-grey cloudings (especially in median area of forewing) and indistinct darker blue-grey spots, the costal half of forewing as far as the first line ochreous, shading off into the ground-colour posteriorly. Forewing with the two lines fine, whitish-ochreous, edged, on their obverse sides, with small black dots on the veins; antemedian from costa at 6 mm., oblique outwards, very strongly bent behind SC, then straight to hind margin at nearly 5 mm.; postmedian from costa 2.5 mm. before apex to hind margin at beyond 7 mm., tolerably straight, but with an extremely slight angle at R³; fringe ochreous proximally, whitish distally and with dark spots opposite the veins; cell-spot large, grey, dotted with blackish (especially in its centre) and with a deep blackish-red circumscription. Hindwing with slight indications of a sinuous whitish postmedian line, a row of grey dots distally and parallel to it somewhat larger and more distinct than the rest of the dots; an ill-defined grey spot at tornus; fringe proximally paler than on forewing, opposite the tornal spot mixed with red; spots opposite veins as on forewing. Forewing beneath similarly but more vaguely marked, antemedian line wanting; hindwing beneath with a small black discal dot, the postmedian whitish line of upperside not reproduced, but the dots beyond stronger and accompanied by a pale line corresponding to the postmedian of the forewing.

Sarnia, Natal, 12th August, 1913.

Probably a ♀ form to *ocellata* Warr. (Nov. Zool., IV, 260), though so different in colour and aspect. A second ♀ is smaller (34 mm.) and may represent the normal ♀ of the species; ground-colour uniformly suffused with ochreous (paler on hindwing), the grey discal spot smaller, scarcely dark dotted, its circumscription indistinct, being merely darker ochreous. Durban (Colonel Bowker), in coll. British Museum.

Zamarada pandatilinea, n. sp. (Pl. XXV, Fig. 30).

♂ ♀, 22–24 mm. Structure normal, ♂ hindtibia not greatly dilated, forewing with termen (at least in the ♂) somewhat more oblique than in most *Zamarada*. Coloration as in rather dark-bordered examples of *secutaria* Guen. (= *pulverosa* Warr.). (Face abraded in both examples.) Palpus fuscous above, pale beneath. Vertex and antennal shaft pale whitish-brown, the latter dotted with fuscous; occiput fuscous. Thorax and abdomen whitish-brown mixed with fuscous, a fuscous belt at base of abdomen above. Legs pale, foreleg (especially femur) fuscous above and on inner side. Forewing with very small, ill-defined, oblique-edged fuscous patch at base; antemedian line oblique outwards from costa at or before one-third, strongly curved in cell, becoming parallel with termen; median rather less distinct, arising from a dark costal spot, strongly excurved distally to discal dot, approaching antemedian at posterior margin, both here thickened and blackened; postmedian somewhat wavy, in its middle part (from R¹ to M¹) parallel with and midway between antemedian and termen, anteriorly strongly bent proximad, posteriorly slightly so; traces of a pale, weakly lunulate-dentate subterminal line, especially in posterior half of wing, where it is accompanied by strong dark fuscous clouding proximally, in anterior half almost obscured by similar but more extended clouding or mottling, which reaches termen; cell-dot small, black; a dark terminal line; fringes strongly dark-chequered between the veins. Hindwing similarly marked, the lines wavy, all nearly parallel with termen; anterior part of terminal area less strongly clouded than on forewing. Under surface with costal margin of forewing mostly dark fuscous to about middle, both wings with discal dot and dark border, in the type ♂ separated from termen by a narrow pale band, except in anterior half of forewing, in the cotype (♀) reaching the termen throughout.

Three Sisters, Transvaal, 19th March, 1911, type (♂). Singerton, June, 1910 (Munro), cotype (♀) in coll. L. B. Prout, presented by Mr. Janse.

Discalma griseescens, n. sp. (Pl. XXV, Fig. 31).

♂ ♀, 26–28 mm. Face and palpus grey mixed with brown; palpus about one and a half times diameter of eye, terminal joint slender, slightly drooping; first joint beneath white. Vertex and shaft of antenna white; occiput, postorbital rim, and collar brown. Antennal joints in ♂ slightly projecting, the ciliation in pairs of slender fascicles, about as long as diameter of shaft. Hindtibia in ♂ not dilated. Thorax and abdomen colorous with wings. Fovea not strong. Forewing whitish-grey with moderate darker irroration—about as *johnstoni* Btlr., but with the lines and irroration less brown and without the definite brownish distal shades; discal mark conspicuous, somewhat elongate, vertical to costa; first line about as in the following species, sometimes obsolescent; median shade oblique (parallel with termen), somewhat curved basewards at costa, otherwise almost straight, usually placed well beyond the cell-spot, sometimes obsolescent; postmedian similarly formed, more distinct, closely followed distally by an additional, ill-defined line or narrow shade; distal area slightly darker than the rest; marginal line consisting of isolated,

somewhat elongate black dots or spots, not very intense; fringe rather pale, with a thick dark dividing line and more definitely dark-spotted opposite the veins. Hindwing with termen slightly waved and a very little more prominent at R^3 (about as in *johnstoni*); coloured and marked nearly like forewing, discal dot smaller, antemedian line wanting, median straight or very slightly sinuous, well beyond discal dot, postmedian feebly bent in middle, without the crenulations of *johnstoni*. Under surface rather paler, but strongly irrorated, costa and veins tinged with ochreous, discal dots and median and postmedian lines traceable but not strong, distal area slightly darkened.

Selukwe, Southern Rhodesia, May, 1913 (type ♂), January, 1913 (♂), February, 1913 (♂), October, 1913 (♂), November, 1911 (♀), all in my collection, presented by the discoverer, Mr. F. W. Short. Pretoria, 23rd August, 1913, a rather more glossy, weakly marked ♀, in coll. A. J. T. Janse.

As in *johnstoni*, the forewing has SC^{1-2} coincident, free. In both the ♀♀ the termen of the forewing is slightly less even and that of the hindwing shows a slightly more noticeable excision between the radials. Thus one of the intergrades which make it doubtful whether the genus should not sink to *Macaria*; if it be tenable, *Discalma* Meyr. must take precedence of *Jephrinopsis* Warr., which has been in general use; both are founded on the same type (*normata* Walk. = *parallelaria* Walk.).

Macaria hypoleuca, n. sp. (Pl. XXV, Fig. 32).

♂, 27-29 mm. Head and body concolorous with wings. Palpus about one and a half, more yellowish beneath than above. Antennal ciliation less than half. Abdomen rather long and slender. Hindtibia dilated with hair-pencil. Forewing with termen scarcely at all concave anteriorly, almost inappreciably bent in middle; fawn-colour, mixed with violet-grey, darker in distal area, the dark irroration not very intense; lines fine, brownish; antemedian from costa at one-fourth, forming an outward curve in its anterior half, angled inwards on M, then again excurved, though quite feebly; median shade from costa at one-half, angled at R^1 , crossing or touching the posterior extremity of the large black cell-dot, slightly curved inwards between M and SM^2 ; postmedian from costa at about two-thirds, angled or strongly bent at R^1 , then almost straight, without the second angle of *leighi* Warr.; distal area mostly occupied by a dark cloud (proximally more brown, especially just behind R^3), its anterior edge (not sharply defined) running obliquely from R^3 to termen near apex; terminal line fine and slight, brown, interrupted; fringe clouded with grey. Hindwing relatively large, its distal margin little crenulate, but produced in middle, with a well-marked angle or tooth at R^3 ; first line wanting, median making a curve round the proximal side of the conspicuous black cell-dot, postmedian not very distinct at costa, bluntly bent in middle, curving somewhat towards tornus at inner margin; a vague brown shade distally to the postmedian, limited by a still vaguer pale subterminal clouding. Under surface white, with coarse, in places confluent, olive-brown irroration, veins ochreous; forewing with costal margin ochreous; both wings with cell-spot, ill-defined olive-brown

median shade, traces of fine postmedian, broad ochreous-mixed band distally hereto, that of hindwing running to tornus, and shading at the radials between this band and termen.

New Hanover, Natal (Hardenberg), August, 1913 (type). North-Eastern Rhodesia : Niamadzi River, near Nawalia, 2,000 feet, 20th August, 1910, and Upper Luango River, between Luwumbu and Mwailesi Rivers, 9th August, 1910, two ♂♂ (S. A. Neave), in coll. British Museum.

An inconspicuous species, but apparently undescribed. About the shape of *leighi* Warr. (Nov. Zool., XI, 478) and *unicolor* Warr. (Nov. Zool., XII, 403), of which I can at present only compare the descriptions and figures; distinguished from the former by the conspicuous black cell-spot of the forewing, etc., from the latter by its more varied colouring, different underside, etc.

Macaria tecnum, n. sp. (Pl. XXV, Fig. 33).

♂, 20 mm. Head with palpus and antenna mixed with brownish; palpus rather short; antennal joints slightly projecting, ciliation almost as long as diameter of shaft. Thorax and abdomen concolorous with wings. Hindtibia dilated. Forewing with termen smooth, rather strongly oblique; SC^{1-2} coincident; light violet-grey with dark irroration and slightly clouded with brownish, especially as a vague band distally to the postmedian; discal mark somewhat elongate; lines fine; antemedian excurved in cell and more slightly at SM^2 ; median shade weak except at costa, approximated to antemedian, thus proximal to the cell-mark; postmedian nearly right-angled at R^1 , then nearly parallel with termen; a vague fuscous shade between the brown outer shade and the almost obsolete subterminal; a still more vague dark terminal patch on radials. Hindwing rather bluntly elbowed at R^3 ; paler from base to postmedian; antemedian obsolete; median continuing the antemedian of forewing, almost straight, reaching inner margin near the postmedian; discal dot small; postmedian slightly sinuous; distal area about as on forewing. Underside similarly but more weakly marked, costal margin of forewing slightly more ochreous-tinged.

Pretoria, 3rd December, 1913.

One of the smallest species of the genus. A worn ♂ from the same locality, 3rd November, 1911, seems to have been whiter and more sharply marked.

Macaria elata, n. sp. (Pl. XXV, Fig. 34).

♀, 39 mm. Shape and structure of *lataria* Walk., List Lep. Ins., XXIII, 921 (forewing with SC^1 out of C, not touching SC^2 , but—like *lataria*—will probably be found to vary; in that species SC^1 sometimes anastomoses with SC^2 , sometimes not). Colour nearly as in dark *lataria*, but with slightly more of a rust-coloured hue, especially on the lines and in a vague band distally to the postmedian (not appreciably denoted in *lataria*); the glaucous whitish ground-colour only discernible as a few irregular spots and dots between base and postmedian (especially of forewing), distal area (beyond the ferruginous-tinted band) quite as in dark *lataria*; costal edge and first line of forewing as in *lataria*; median shade

of forewing diffuse, nearly straight, of hindwing much less irregular than in *lataria*, only with a weak bend in cell in order to pass proximally to the cell-spot; postmedian of forewing with only a gentle subcostal curve, of hindwing almost straight. Under surface coloured as in *lataria*, but showing corresponding differences in the course of the lines; median shade on both wings thick; subapical white spot on both wings reduced in size.

Natal (Clark), without more exact data.

Alcis incauta, n. sp. (Pl. XXV, Fig. 35).

♂, 30 mm. Face fuscous, darkest in upper part. Vertex and antennal shaft whitish, the latter feebly darker-banded; pectinations very long, terminating in stiff, bristly, forward-directed single hairs which are much longer than the rest of the ciliation; apex of antenna simple (extreme tip lost). Thorax and abdomen above whitish, coarsely irrorated with fuscous and with large paired fuscous spots; tegula also with some rather large dark spots. Legs mostly fuscous, paler beneath and at ends of joints and with hindleg (especially the tarsus) paler than the others; hind-tibia not dilated. Shape, colour, and facies of the South American genus (or subgenus of *Boarmia*) *Stenalcidia* Warr., ochreous whitish irrorated with fuscous, about as in *S. mollearia* Walk., List Lep. Ins., XX, 357, etc. Forewing with fovea well developed, SC^{1-2} on a common stalk nearly 2 mm. in length, R^1 rather curved at its origin, arising much nearer to R^2 than to SC^{3-5} ; lines fuscous, spotted with black on the veins; antemedian from costa at two-sevenths to posterior margin near the base, curved in cell, then oblique, weak at the folds; proximally to it faint traces of another line, which would probably meet it at posterior margin as in many *Stenalcidia*, etc.; median line weak, not thickened except at the veins, about parallel with antemedian at 2 mm. distance; an ill-defined discal dot touching this line; postmedian from two-thirds costa, slender (the spots on the veins small, but distinct), very slightly incurved costally, bluntly angled outwards at R^2 and very slightly at SM^2 , forming a long but scarcely appreciable inward curve between, reaching posterior margin at almost two-thirds; subterminal lunulate-dentate, not very slender, rather indistinct and somewhat interrupted, the lunules weakly dark-filled proximally; terminal area also with weak, ill-defined dark clouding in places, chiefly between postmedian and subterminal lines from R^2 to M^1 and between subterminal and termen from R^2 to apex in the form of thick interneural streaks; termen with conspicuous dark interneural spots; fringe with weaker and smaller spots at vein-ends. Hindwing with the median line becoming antemedian, angled on R^3 ; a conspicuous oval cell-spot; postmedian rather near cell-spot, being over 3 mm. from termen, anteriorly curved parallel therewith, posteriorly a little incurved, bending outwards again from fold to inner margin; distal area and fringe as on forewing. Under surface with the dark lines distinct, similarly formed, only the antemedian rather obscured by some dark basal shading of forewing; on both wings somewhat enlarged costal spots at origin of lines; discal spot on both wings large; distal area almost without dark shading, subterminal therefore invisible.

Barborton, 1st January, 1911.

Alcis proximaria Walk.

This conspicuous species, described by Walker in the "List of Lepidopterous Insects," XXI, 365, as *Boarmia*, was unfortunately overlooked by me, on account of its being misplaced in the British Museum Collection, and I have therefore created a useless synonym—*sexorbata* Prout, Ann. Transv. Mus., III, 222. The figure, the structural information, and other data are, however, new and not unimportant.

Boarmia gonophora, n. sp. (Pl. XXV, Fig. 36).

♂, 25–28 mm. Body and wings pale wood-colour, head (with palpus and antennal shaft) and front of thorax strongly mixed with fuscous, dorsum of abdomen, except at base and anus, fuscous marked with black, venter irregularly black-spotted towards the sides. Antennal pectinations long, decreasing rather abruptly near apex, three or four segments serrate, extreme tip almost simple. Hindtibia rather stout, but apparently without hair-pencil. Forewing with SC^{1-2} coincident throughout, free from C, in the type apparently connected with SC^{3-4} by a very short bar, in other examples certainly free. Wings sprinkled with fuscous and in places somewhat clouded with ferruginous. Forewing with costa mostly marked with fuscous, leaving only in places spots or very short tracts of the ground-colour; lines arising from equidistant blackish costal spots at before one-third, just one-half and beyond two-thirds; antemedian sharply bent in cell, then oblique inwards; median much less sharply bent, thicker, crossing the elongate blackish cell-spot, then rather thick and parallel with antemedian, black, yet not very conspicuous on account of a strong fuscous sprinkling which gives to almost the entire central area the aspect of a dark band; postmedian somewhat incurved subcostally, otherwise nearly parallel with termen in anterior half, then moderately strongly incurved, throughout marked with black spots on the veins, especially on the radials and M^1 ; subterminal lunulate-dentate, parallel with termen, filled in proximally with dark spots, that between SM^1 and SM^2 much enlarged; distal area with dark interneural streaks from SC^5 to SM^2 , that between SM^1 and SM^2 much thickened; these streaks end in black terminal spots. Hindwing with antemedian line near the base, median rather straight, almost meeting postmedian on inner margin, postmedian from about mid-costa, almost right-angled at R^3 , but with a slight angle also at M^1 , then very slightly incurved; median band, cell-spot, and black spots on postmedian as on forewing; distal markings similarly developed to those of forewing, but less strongly, the proximal spots of subterminal large between the radials and at inner margin, otherwise obsolescent, distal streaks obsolescent (but the specimens are not in perfect condition); termen feebly subcrenulate, terminal spots enlarged into subcrenate marks, only separated by the veins. Under surface with first line obsolescent, both wings being fuscous-speckled to base; postmedian less sharply angled than above; entire distal area (except a narrow space immediately following postmedian) irregularly and not very distinctly dotted and blotched with fuscous.

Barberton, 6th January, 1911 (type). Three Sisters, April, 1911 (cotype in coll. L. B. Prout).

As ab. *albimacula*, n. ab. (Pl. XXV, Fig. 37), I describe a ♀ (27 mm.) from Three Sisters (20th February, 1911) in which the distal area above is more confusedly marked, but contains on forewing a large quadrate white marginal spot from before R^3 to behind M^1 and on the hindwing a smaller, vaguer one, both also reproduced beneath. As I have not seen any other ♀, it is just possible (though unlikely) that this will prove the normal form of that sex. This particular specimen also differs from the type in still blacker median band, postmedian of forewing more deeply incurved in posterior half, a more ferruginous shade proximally to the subterminal, more infuscated terminal area, etc.

Ectropis obliquilinea, n. sp. (Pl. XXV, Fig. 38).

♀, 38 mm. Face flat, dark fuscous. Palpus short, fuscous. Vertex and antenna concolorous with wings; occiput and collar more fuscous. Thorax dorsally a good deal mixed with fuscous, abdomen irregularly belted, in great measure corresponding to the markings of the hindwing. Forewing rather elongate, costa straight except at extreme base and apex, termen very slightly curved, rather strongly oblique; SC^{1-2} coincident; ground-colour whitish, with a very slight tinge of purple and strongly dusted with fuscous; lines nearly black; first from posterior margin 1.5 mm. from base, extremely oblique to cell-fold 7 mm. from base, here becoming obsolete; fairly direct, but minutely denticulate on the veins and with extremely shallow lunules between; almost the entire area proximally to this line, and extending to costa fuscous; discal mark present not conspicuous; median line weak, very near postmedian; postmedian parallel with antemedian and similarly formed, the teeth rather stronger; from hind margin almost at middle to SC^5 scarcely more than 2 mm. from termen; a second fuscous band (traversed proximally to its centre by a darker shade) between this line and the subterminal, continuing (narrowing) to termen between SC^5 and R^1 ; subterminal line white, rather distinct (except anteriorly), irregularly lunulate. Hindwing concolorous with forewing, no antemedian line; median more distinct than on forewing, from inner margin at two-fifths, slightly curved, losing itself about at SC ; discal mark a rather irregular, indistinct ocellus (pale with darker circumscription); postmedian from inner margin at about two-thirds, nearly straight (faintly curved and denticulate) to R^1 , here angled, then lunulate-dentate to costa 2 or 3 mm. from apex; succeeding band and subterminal line as on forewing, both reaching costa. Both wings beneath paler as far as postmedian (dark-spotted costally), with large, distinct, rounded black cell-spot; postmedian of forewing as above, of hindwing more curved towards torus, both wings with almost uniform purplish-fuscous broad border from shortly after postmedian to termen.

Warmberg, Transvaal, 22nd December, 1903.

A worn ♂ in coll. British Museum is rather smaller (32 mm.), much less dark-suffused in terminal area above and beneath (though this is to some extent due to its condition), antenna with slender fascicles of cilia, hindtibia not dilated. "Cape" (W. H. Heale).

Pareclipsis punctata ab. *distolochorda*, n. ab. (? bon. sp.),
(Pl. XXV, Fig. 39).

♀, 33 mm. Differs from typical *P. punctata* Warr. (Nov., Zool., VII, 97), as follows: Ground-colour above paler, with only a slight fleshy tinge; forewing with first line very indistinct, second, on the other hand, strongly developed, the black dots being connected throughout, except anteriorly to SC⁵, by shallow black lunules; a strong, nearly straight, rust-coloured line (partly overlaid with black) closely accompanying the postmedian proximally, from hind margin to R¹; the oblique subapical shade strong; cell-mark weak, obscurely outlined in grey, otherwise of the ground-colour. Hindwing with the proximal of the two lines also exaggerated. The forewing, moreover, is much more strongly convex at base of costa and middle of termen than in typical ♂, which alone I have before me; but Warren mentions a rounded-prominent termen in the "type" ♀.

Barberton, 8th January, 1911.

SC² of forewing is connected with SC³⁺⁴, as sometimes occurs in typical *punctata*.

Nassunia pretoria, n. sp. (Pl. XXV, Fig. 40).

♂ ♀, 36-45 mm. Face dove-colour, upper half with an orange spot on each side; crown bright orange. Antenna dark violet-grey. Thorax and abdomen concolorous with wings; an orange dorsal spot on thorax, pairs of very small orange, black-centred spots on abdomen. Forewing light pinkish-violet, with an orange spot at base of costa; antemedian line consisting of three orange, black-centred spots on the veins, the anterior one the largest, the median one slightly further from base; postmedian line formed of a similar curved row of vein-spots, all small. Hindwing with inner and distal margins and fringe concolorous with the forewing, the rest orange, becoming pale in the submedian area; a dark orange postmedian line, curved parallel with termen (less sinuous than the row of dots of *cafraria* L.). Forewing beneath orange, with costal and distal margins and a broader apical area light pinkish-violet, the lines of dots deeper orange, in addition a dark cell-dot. Hindwing beneath light pinkish-violet, with orange, dark-centred cell-dot and postmedian row of vein-dots.

Pretoria, 22nd November, 1913 (type ♀), 20th November, 1913 (cotype ♀ in coll. L. B. Prout), a ♂ (worn) and two ♀♀ in coll. British Museum, ex coll. Distant. Not at all variable. May conceivably be a remarkable recurrent colour-aberration of *cafraria*; the antennal pectinations appear very slightly longer, but the distance is so very trifling that without anatomical research I cannot be sure that my eyes do not deceive me. In any case it requires a name.

Annals of the Transvaal Museum Plate XXV.



Janse ad nat del.

West, Newman chr.